

U. S. DEPARTMENT OF COMMERCE
Environmental Science Services Administration

in cooperation with
Cotton Economic Research and
Bureau of Business Research of
The University of Texas at Austin

CLIMATOGRAPHY OF THE UNITED STATES NO. 20-41

CLIMATOLOGICAL SUMMARY

STATION GREENVILLE, TEXAS

LATITUDE 33° 12' N
 LONGITUDE 96° 13' W
 ELEV. (GROUND) 610 ft.

MEANS AND EXTREMES FOR PERIOD 1938-1967

Month	Temperature (°F)								** Mean degree days	Precipitation Totals (Inches)							Mean number of days						Month
	Means			Extremes						Mean	Greatest daily	Year	Snow, Sleet			Precip. 10 inch or more	Temperatures						
	Daily maximum	Daily minimum	Monthly	Record highest	Year	Record lowest	Year	Mean					Maximum monthly	Year	Greatest Depth		Year	Precip. 90° and above	Max.		Min.		
																			32° and below	32° and below	0° and below	0° and below	
(a)	30	30	30	30		30		12	30	30		30	30		12	12	12	12	12				
Jan	53.1	31.7	42.4	83	1952	-3	1949	744	2.44	3.75	1938	1.7	9.8	1948	6	1956	4	0	3	20	0	Jan	
Feb	57.2	35.8	46.5	84	1960	0	1951	552	3.29	3.38	1965	0.4	4.0	1938	3	1966	5	0	1	14	0	Feb	
Mar	65.2	42.2	53.7	91	1955+	7	1943	404	3.45	5.13	1944	0.3	4.0	1962+	3	1962	5	0	*	5	0	Mar	
Apr	74.3	53.0	63.7	95	1963	30	1940	113	5.34	8.28	1942	*	0.2	1938	0		7	*	0	*	0	Apr	
May	81.6	61.3	71.5	98	1958	37	1954	20	5.89	3.74	1963	0	0		0		6	4	0	0	0	May	
Jun	89.5	69.1	79.3	104	1953	50	1955	*	4.06	6.44	1945	0	0		0		6	16	0	0	0	Jun	
Jul	93.7	72.2	83.0	108	1954	57	1967	0	3.15	4.04	1949	0	0		0		5	26	0	0	0	Jul	
Aug	94.9	71.3	83.1	108	1956	52	1967	*	2.19	5.20	1940	0	0		0		3	26	0	0	0	Aug	
Sep	88.4	64.7	76.6	107	1939	36	1942	5	3.29	3.87	1965	0	0		0		5	14	0	0	0	Sep	
Oct	79.2	54.0	66.6	100	1938	28	1957	91	3.18	4.05	1949	0	0		0		3	2	0	*	0	Oct	
Nov	65.5	42.2	53.9	89	1948	17	1950+	333	3.59	7.53	1946	0	0		0		6	0	0	5	0	Nov	
Dec	56.3	34.7	45.5	87	1955	8	1963+	625	2.91	3.05	1959	0.3	2.5	1963+	3	1963	5	0	1	14	0	Dec	
Year	74.9	52.7	63.8	108	Aug. 1956+	-3	Jan. 1949	2887	42.78	8.28	Apr. 1942	2.7	9.8	Jan. 1948	6	Jan. 1956	60	88	5	59	0	Year	

(a) Average length of record, years.

+ Also on earlier dates, months, or years.

† Trace, an amount too small to measure.

* Less than one half.

** Base 65°F

THE CLIMATE OF GREENVILLE, TEXAS

Greenville is the county seat of Hunt County, located about 53 miles northeast of Dallas. Situated near the center of a cotton producing area, Greenville has one of the world's largest inland compresses. More than 50 manufacturing concerns are located here. Products include clothing, agricultural chemicals, equipment for electronics and oil fields, trailers, and aircraft overhaul. East Texas State University is located at Commerce, 16 miles northeast of Greenville. Hunt County is level to rolling, waxy blackland soils, some loams and sandy loams, and bisected by the Sabine River. Lake Tawakoni, which covers more than 36,000 acres, spreads into the southeastern portion of Hunt County, and is a favorite recreational area. Hunt County has a balanced industrial-agricultural economy. About 60 percent of farm income is from crops, principally cotton, wheat, and grain sorghums. Pastures and cattle have been increasing in recent years.

The climate of Greenville is humid subtropical with warm summers. It is a continental type climate characterized by extreme variations in temperature. Tropical maritime air masses predominate throughout the late spring, summer and early fall months, while polar air masses frequent the area in winter. Temperature extremes have ranged from -4°F, which occurred January 18, 1930, to 116°F, which occurred August 10, 1936. Rainfall is abundant, averaging 42.78 inches annually. Although rainfall is fairly evenly distributed throughout the year, August is the driest month; April and May are the wettest. The wettest year of record, since 1900, was 1957 when Greenville received a total of 75.24 inches. The driest year of record was 1910 when only 17.63 inches fell during the year. Prevailing winds are southerly except in August, September, October and December when southeasterly winds are most frequent. The mean annual relative humidity is 82 percent at 6:00 a.m., 56 percent at noon and 53 percent at 6:00 p.m., Central

Standard Time. The area receives about 52 percent of the total possible sunshine during the winter and about 75 percent of the total possible during the summer season.

Winter temperatures are mild with only about five days during the year, on an average, when the daily maximum fails to go above freezing. Freezes occur on about two out of three nights in winter. Arctic, or unusually cold polar air masses, plunging southward out of Canada bring sharp drops in temperature, accompanied occasionally by strong, gusty, northerly winds. Ordinarily, cold spells are brief, and followed by a rapid warming trend. Winter precipitation is not as heavy as in the fall or spring, and is closely associated with frontal systems. Snowfall is not significant. Rare, heavy snows bias the snowfall data with the result that the arithmetic mean is a poor estimate of expected snowfall.

Summer: Daytime temperatures are quite warm, particularly in August. Refrigerated air-conditioning is recommended for maximum comfort indoors. Except for occasional thundershowers that dissipate the afternoon heat, there is little variation in the day-to-day weather in summer.

Spring and fall are very pleasant seasons at Greenville. Cloudiness and showers are more frequent in the spring than in the fall. Average wind speeds are stronger in the spring also.

The growing season (freeze free period) averages 233 days. The mean dates of the last freeze in the spring and the first in the fall are March 22 and November 10, respectively.

Thunderstorms occur on 47 days each year, on an average. A few of these, particularly those of late spring or early summer, may be accompanied by damaging wind or hailstorms.

GREENVILLE, TEXAS

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1928	45.6	53.2	62.0	62.2	71.8	79.8	82.6	84.7	78.1	70.8	62.0	46.4	55.8
1929	47.4	42.7	57.4	61.0	73.3	80.5	85.6	84.0	82.3	69.8	51.9	50.0	55.5
1930	51.5	44.5	49.4	62.0	69.3	76.8	80.2	80.0	73.5	68.4	51.4	47.2	61.8
1941	45.4	44.1	53.4	64.2	74.0	79.2	82.4	82.8	78.0	70.0	53.1	47.6	64.0
1942	39.9	45.1	53.4	63.6	70.1	80.4	83.0	86.5	73.0	64.4	57.2	46.6	63.2
1943	43.2	49.2	48.8	65.8	72.1	80.1	83.5	85.1	75.0	63.8	43.0	43.0	63.8
1944	44.9	50.8	54.0	62.9	70.9	81.4	83.8	83.5	75.2	66.6	55.9	42.2	64.3
1945	42.8	46.3	48.3	67.4	69.6	77.4	79.5	80.5	68.2	58.2	41.2	41.2	63.4
1946	43.6	48.3	59.0	62.5	70.0	77.1	80.0	80.0	74.4	66.8	55.1	50.4	64.8
1947	43.0	41.2	48.2	63.5	72.0	79.4	81.8	84.7	72.1	65.4	50.2	47.0	63.2
1948	36.5	45.0	51.7	69.1	72.4	81.4	83.7	82.9	76.1	65.4	54.0	48.5	63.9
1949	39.0	46.1	54.1	61.8	73.7	79.4	82.7	79.2	73.4	64.8	56.6	48.1	63.3
1950	48.0	49.7	52.5	61.4	71.7	78.4	79.3	80.1	73.4	70.2	53.1	44.8	53.6
1951	44.2	45.5	55.4	63.1	70.8	78.4	84.3	89.0	77.5	68.2	50.7	47.6	64.5
1952	51.9	51.7	52.8	60.3	70.7	81.9	83.9	87.5	78.2	62.4	54.0	43.7	64.9
1953	47.5	47.7	59.0	69.4	70.8	85.7	82.6	82.2	77.7	69.4	52.9	44.5	64.8
1954	44.4	53.9	53.7	68.1	70.8	81.2	88.4	87.4	81.2	66.7	53.6	47.4	66.2
1955	44.3	45.7	55.2	63.3	76.1	80.9	87.6	86.9	79.7	70.9	51.1	49.4	65.8
1956	42.4	46.7	54.2	67.0	74.8	81.0	85.8	82.5	74.6	61.5	51.3	50.0	63.5
1957	42.1	52.3	50.6	60.5	71.0	79.4	85.8	84.0	77.9	64.8	56.2	42.1	62.8
1958	42.2	41.6	48.1	60.7	72.2	80.2	83.1	84.0	77.6	64.8	48.2	48.6	62.8
1959	40.1	46.1	52.9	60.9	74.0	78.4	81.7	81.6	77.3	68.1	55.3	41.9	62.7
1960	42.3	41.1	45.8	66.5	70.0	76.9	80.8	80.6	76.3	65.8	51.8	44.2	62.7
1961	39.5	48.9	56.7	61.2	70.9	75.8	80.8	83.6	76.0	69.0	53.1	45.4	63.6
1962	37.3	52.5	50.9	61.1	75.1	77.2	81.8	83.6	76.0	69.0	53.1	37.5	64.7
1963	35.6	43.3	58.5	68.2	72.3	80.6	84.6	86.2	75.6	63.7	51.1	43.4	64.7
1964	42.2	42.3	52.4	65.3	71.2	77.3	83.0	80.8	75.2	63.7	51.1	43.4	64.7
1965	44.6	43.2	44.5	66.0	72.2	77.2	83.6	79.6	72.7	62.0	58.3	42.7	61.6
1966	37.7	41.9	52.1	61.7	69.5	79.8	80.1	80.5	71.5	62.6	52.6	43.8	62.9
1967	43.9	43.6	60.0	67.7	68.9	79.8	80.1	80.5	71.5	62.6	52.6	43.8	62.9

STATION HISTORY

Temperature and precipitation records began at Greenville in March 1900. Except for a few gaps in earlier years, records are reasonably complete. Since its establishment the station has been relocated several times, each move being within about 2.5 miles of the Greenville Post Office, until August 10, 1964. At that time the equipment was moved to the new home of the Cooperative Observer, seven miles northwest of the post office. Mr. Hal W. English, the present Cooperative Observer, was appointed January 1, 1948. Station equipment consists of a cotton region shelter, maximum and minimum thermometers, and a standard 8-inch non-recording rain gage. Temperature and precipitation data are published monthly in CLIMATOLOGICAL DATA-TEXAS, station index number, 41-3734-03.

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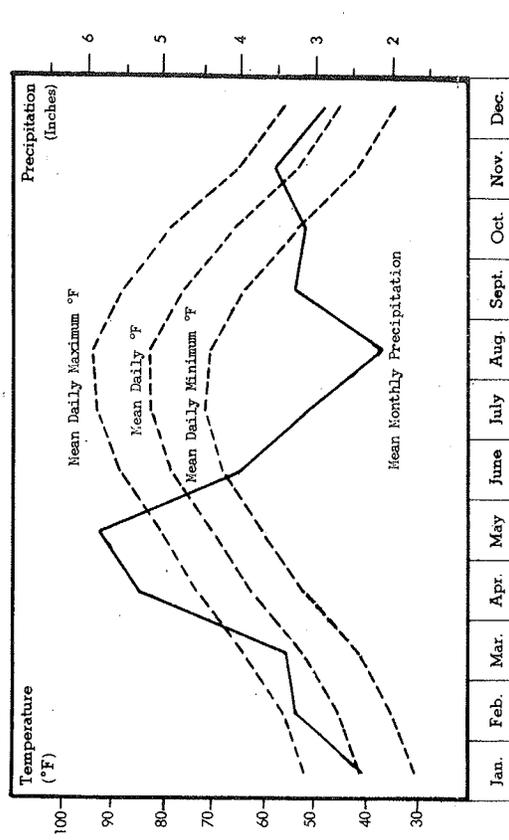
GREENVILLE, TEXAS

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1928	7.31	4.12	3.78	7.68	1.19	2.78	2.49	0.94	1.43	0.23	3.20	1.74	38.09
1929	3.67	5.31	2.82	4.23	2.41	2.57	0.77	2.21	0.25	1.57	5.44	1.87	33.52
1930	5.68	3.47	2.60	5.96	6.39	4.84	4.12	5.84	0.59	2.04	8.04	6.98	51.55
1941	1.16	3.48	3.48	5.79	3.48	10.38	3.17	2.25	0.45	2.04	1.56	2.91	49.88
1942	1.70	1.90	1.59	18.58	5.44	4.94	1.32	1.36	3.74	3.49	2.49	3.75	49.32
1943	0.37	0.79	6.00	3.69	5.83	5.78	0.33	3.54	0.58	1.56	0.83	3.64	35.12
1944	2.01	6.05	6.28	3.35	11.83	2.55	2.36	3.54	0.58	1.56	4.55	5.00	50.12
1945	1.84	7.17	10.34	3.70	2.66	8.03	6.15	1.96	4.56	3.13	1.76	1.10	51.93
1946	3.94	4.01	3.70	4.02	14.34	4.25	0.62	4.17	3.20	1.63	14.33	3.45	63.66
1947	2.14	0.59	2.79	3.70	4.28	4.30	0.18	4.71	2.52	3.10	4.63	7.12	40.18
1948	2.49	2.26	3.54	1.63	9.00	2.48	5.16	2.16	T	2.34	1.10	2.52	34.68
1949	4.89	5.19	3.28	2.49	5.10	5.00	6.61	4.05	2.27	9.31	0.54	2.25	52.98
1950	4.09	7.03	2.28	4.48	7.81	3.13	8.81	2.24	5.03	1.08	0.21	0.13	46.75
1951	2.16	4.02	1.23	1.64	4.40	9.53	3.47	0.06	4.15	2.24	2.12	0.73	35.77
1952	1.16	2.04	2.63	8.60	7.29	1.69	1.61	0.99	0.89	0.26	8.87	3.11	36.57
1953	1.45	1.33	4.30	7.91	3.51	0.21	1.62	1.65	0.89	0.26	4.81	4.11	34.19
1954	3.37	0.79	0.90	3.20	3.46	2.12	1.48	0.38	2.37	10.43	1.81	1.38	36.57
1955	1.88	4.00	2.38	3.32	2.96	1.73	2.21	4.00	2.35	0.38	0.56	1.08	28.97
1956	2.49	3.35	2.22	3.86	3.86	1.64	1.36	0.52	0.04	0.41	5.20	2.79	23.75
1957	2.56	1.87	7.17	18.75	14.19	4.01	4.54	1.45	6.02	5.68	7.15	1.84	75.24
1958	2.24	1.21	5.05	7.20	4.95	6.99	3.93	1.40	5.63	1.11	2.31	1.87	42.89
1959	0.42	3.79	3.48	2.43	3.03	4.08	7.53	1.53	2.11	9.38	2.32	5.82	45.92
1960	3.58	3.22	1.62	1.49	4.81	4.94	4.90	3.48	5.32	7.40	1.49	7.92	50.17
1961	2.84	2.61	7.58	1.01	5.38	3.94	2.12	1.00	4.03	2.31	4.02	3.66	41.47
1962	2.16	2.27	2.98	4.83	2.93	8.07	3.59	0.64	8.03	4.50	5.00	1.10	46.08
1963	1.08	0.22	1.63	5.35	7.77	0.67	2.99	T	1.04	0.13	2.33	2.21	25.42
1964	1.54	1.62	4.09	4.35	2.94	2.15	1.02	5.72	11.90	0.08	5.88	1.08	42.37
1965	2.83	5.99	1.12	1.72	8.87	1.54	1.83	1.45	6.44	0.83	1.99	1.30	35.91
1966	2.08	3.52	2.04	12.73	1.91	2.58	2.79	5.04	3.68	2.59	0.58	1.94	41.54
1967	0.37	1.44	1.93	6.17	7.35	0.83	3.26	0.98	6.24	5.42	2.00	3.28	39.47

T - Trace

Monthly Temperatures and Precipitation



Single copies of this summary are available without charge from the Bureau of Business Research, The University of Texas, Austin, Texas 78712. Quantity rates upon request.